

Pregnancy and Psychological Preparation for Parenthood

SUMMARY

Recent evidence suggests that pregnancy is a normal developmental period requiring psychological adaptation by the new parents. This period involves upheavals in emotions, relationships, values and roles which demand considerable attention. Studies have shown that unsuccessful resolution of these upheavals has been associated with difficulties of pregnancy and delivery, postpartum depression and child abuse and neglect. The family physician is in a key position to observe adaptations to pregnancy, to facilitate such adaptations and to intervene when necessary. (Can Fam Physician 1982; 28:1564-1568).

SOMMAIRE

L'évidence récente suggère que la grossesse est une période normale de développement exigeant une adaptation psychologique de la part des nouveaux parents. Cette période implique un bouleversement des émotions, de la relation, des valeurs et des rôles exigeant une attention considérable. Les études ont démontré qu'il y a un lien entre la non-résolution de ces bouleversements et les difficultés au moment de la grossesse et de l'accouchement, la dépression post-partum, la négligence et les mauvais traitements infligés à l'enfant. Le médecin de famille est dans une position idéale pour observer les adaptations à la grossesse, pour faciliter de telles adaptations et pour intervenir si nécessaire.

Dr. Fred Tudiver, a certificant of the College, is an assistant professor of family medicine at Memorial University. Dr. Judy Tudiver, a developmental psychologist, is a consultant in the Department of Education for the Province of Newfoundland. Reprint requests to: Dr. F. Tudiver, Family Practice Unit, Memorial University, St. John's, NF. A1B 3V6.

PARENTING BEGINS long before parents bring their infant home from the hospital. Pregnancy and birth are integral to the process of becoming parents. A growing body of literature demonstrates that considerable psychological preparation occurs during the pregnancy and may be critical for adjustment to parenthood. This seems to be especially true for couples expecting their first child.

Pregnancy is a normal developmental crisis involving profound psychological as well as physical changes.¹ It

affects all expectant mothers regardless of their psychological wellbeing. Bibring sees crises as turning points which, under favorable conditions, can result in personal maturation and growth. All women manifest remarkable psychological changes while pregnant, and these changes profoundly affect the early mother-child relationship.¹

Three Tasks of Pregnancy

Bibring et al.² have described three basic psychological tasks in the developmental crisis of pregnancy. The pregnant woman's first task is to accept the fetus as part of herself. With marked physiological and anatomical changes there is generally increased concentration on the self. This increased concentration facilitates acceptance of the fetus as part of self. The acceptance of pregnancy requires coming to terms with role changes and changes in familiar patterns of work and leisure.

Many women find this acceptance difficult even for planned pregnancies,

because physiological changes often cause tiredness, nausea and other annoying symptoms which may decrease positive feelings.

Ambivalence is very common at this stage. A primiparous woman in her thirties expressed the feeling well: "I'm surprised at myself. We've waited a long time for this baby and now it's coming I'm not so thrilled. Everyone else is very excited and I seem to be dragging my feet over it all".³ After a little more discussion she admitted to resentment at the loss of autonomy. The excitement of creating new life is mitigated by fear and realization of parenthood's tremendous responsibility.

Ambivalence generally continues until quickening occurs and then a second task is introduced: the fetus must be perceived as a separate individual. With fetal movement there is a further acceptance of pregnancy and the mother realizes that a separate individual is involved.

While the first task involves focusing on the self, the second task in-

volves concentrating on the fetus. This is reflected in the pregnant woman's nesting behavior—active, practical preparations that allow her to deal with her feelings about the baby. This marks the beginning of the mother-child relationship and is a developmental achievement in becoming a mother. Examining a woman's response to maternity clothes and baby supplies can reveal much about her feelings and interests for the pregnancy and coming baby.

The final task is letting go, or the active wish that the baby will arrive, which occurs within a month of term. This coincides with attaining gestational age at which chances for neonatal survival are maximal. The physical discomfort most women feel at this stage facilitates the wish that the baby will come; before that time women wish to retain pregnancy.⁴

Successful resolution of each task prepares the pregnant woman for her new role. When pregnancy is confirmed reorganization has to occur with the normal adjustment to pregnancy. Initially, the pregnant woman focuses on herself, then on the fetus, and finally on the delivery and anatomical separation. The first pregnancy is probably a more profound adjustment than subsequent pregnancies in which the developmental process is accelerated.⁴ Brazelton⁵ has suggested that this set of adjustments readies the mother for attachment to the new infant and prepares her for the many new roles she will soon have to play. This crisis is a positive force in preparing for parenthood. If the reorganization or adjustment is not adequate during pregnancy, there may be disturbances and tensions between the mother and the newborn.⁴

Emotional Changes

Like any other developmental crisis, pregnancy is characterized by intense emotion. Studies⁶ indicate that pregnant women demonstrate a wide range of rapidly shifting moods in response to situations that would not generally trigger extreme reactions. Most women are very aware of this altered emotional state. Although they experience a variety of intense feelings, dreams and fantasies during pregnancy, they are often afraid to discuss them with husbands, friends and physicians. They are concerned with whether these feelings are normal and

they need reassurance. The nightmares as well as the pleasant aspects of pregnancy are important and should be shared.⁶ Colman and Colman⁶ have also shown that pregnant women are far more open and willing to reveal dreams, fantasies, anxieties and pleasures than non-pregnant women. This relaxation of defenses may make it easier to work through the psychological tasks of pregnancy.

According to Colman and Colman there is an orderly progression of certain themes and concerns that correspond to trimesters and to the developmental tasks. In the first trimester there is significant anxiety, often a feeling of loneliness and distance from others. This sense of distance coincides with the focus on the changing self. At the same time there is a strong wish to be protected.

In the second trimester there is increased emotional stability and less anxiety. Frequently there is an increase in self confidence and drive, and usually a wish to involve fathers.

In the third trimester anxiety increases again. There is anticipation of the unknown together with pride and fulfillment. The majority of women say they are weary and apprehensive at this time. They have the uncomfortable sense that the baby could arrive at any moment and many are worried that it may just drop out. Four to six weeks before the expected date many pregnant women experience sudden failure of nerve. Kitzinger³ describes the pregnant woman at this time as the actress before the curtain goes up.

Anxiety is often the inevitable consequence of the changes that occur during pregnancy. Hormonal levels are probably correlated with mood changes and depression in pregnant women.⁷ Unfortunately, it is difficult to separate the effects of physiological changes from the many psychological factors. For example, women reported big increases in life changes,⁸ e.g., changes in recreation, eating and sleeping habits and work patterns during pregnancy. In terms of a life stress scale,⁹ these changes would constitute a major life crisis. The mean score of life changes during pregnancy was nearly twice that found during the year prior to conception.⁷

Hormonal changes may produce an increased biological susceptibility to emotional changes in pregnancy, but these changes must be considered in

the context of the developmental crisis and other social and psychological factors. However, women often find great consolation in the rationale that hormonal changes are responsible for mood swings and seemingly unexplained anxieties.¹⁰

Changes in Body Image

Changes in body shape and size are particularly dramatic during pregnancy. At no other time does a woman's body undergo such extensive altering in a short time, and these changes require radical alteration of her body image. In the first trimester the woman develops a feeling of widened space and overall increase in body size.¹¹ During the third trimester her body is more burdensome, more uncomfortable and distorted, but she often doesn't care as much.

These changes are often a cause of concern, anxiety and even depression. They are part of the crisis of pregnancy and can be alarming. An explanation of how specific body changes affect attitudes and perceptions may help pregnant women adjust.

Adjustment Problems of Pregnancy

There are major milestones in pregnancy; failure to attain them puts both the family and child at risk.¹³ Studies by Grossman et al.,¹³ Funke-Furber,¹⁴ Lagercrantz, et al.¹⁵ and Shereshefsky and Yarrow¹⁶ have documented that adaptation to pregnancy is related to maternal postpartum adjustment and infant development and adjustment. In these studies 'adaptation to pregnancy' generally refers to how successfully the woman completes the tasks and resolves the problems of pregnancy. "Maternal postpartum adjustment" reflects the degree to which the mother recognizes and responds to her infant's needs. These adaptive behaviors are one extreme; the other is maladaptive behavior such as child abuse and neglect. "Infant development" encompasses motor, social, emotional, cognitive and language growth, while "infant adjustment" refers to the infant's physical health and adaptation to sleeping and eating routines, irritability, vulnerability to stress and change, etc.¹³

Many factors interfere with a woman's adaptation to pregnancy; research suggests that these specific fac-

tors are associated with pregnancy and birth complications, parenting and infant outcomes.

Emotional factors during pregnancy have been positively related to a multitude of obstetric complications.¹³ Anxiety during pregnancy has been extensively studied, and has been associated with abnormalities and difficulties of birth, poor maternal postpartum adjustment and poor infant adjustment.^{13, 14, 16, 18-20} Some complications associated with anxiety are pre-eclampsia, forceps delivery, prolonged and precipitant labor, postpartum hemorrhage, manual removal of placenta, clinical fetal distress and low Apgar scores.¹⁹⁻²⁰

The amount of life stress experienced during pregnancy has also been associated with prenatal obstetrical complications (e.g., hyperemesis and habitual abortion), birth complications, (e.g., prematurity) postpartum maternal and infant adjustment.^{8, 13, 18, 21-23} Altemeier et al.²⁶ found that significant life stress during pregnancy distinguished mothers at high risk for child abuse from those at low risk. Gorsuch et al.¹⁸ indicated that the relationship between life stress and childbearing outcomes was independent of anxiety.

Studies by Wenner et al.²⁴ and Stott²⁵ indicate that adjustment to pregnancy is more difficult when there is considerable personal tension such as marital discord and lack of support for the pregnant woman. Moreover, Stott²⁵ has found a relationship between prenatal personal tension and child morbidity in the form of ill-health, neurological dysfunction, developmental delays, and behavioral disturbances. Other types of prenatal stress including work stress and accidents were not associated with child morbidity or prenatal maternal illness, short gestation and delivery complications. Moreover, low socioeconomic status and adverse environmental conditions were not significantly related to child morbidity if there was no personal prenatal tension.

Bibring¹ suggests that what was once a transition period with traditions of support has become a period of crisis, with no societal mechanisms for helping pregnant couples cope. Altemeier et al.²⁶ and Gray et al.²⁷ found that this lack of support is characteristic of expectant mothers at risk for child abuse. Horsley²⁸ demonstrates

that mothers who receive extra prenatal support from their physicians (e.g., more listening and explanations) adapt better to birth and their infants have fewer adjustment problems.

Self-esteem during the pregnancy is an important predictor of maternal and infant outcomes. Peterson et al.²⁹ found that maternal prenatal self-esteem was related to the infant's mental development, while Shereshefsky and Yarrow¹⁶ found that self-esteem was related to adaptation to pregnancy and postpartum adjustment. Altemeier et al.'s study²⁶ indicated that a poor self-image in pregnancy was characteristic of mothers at risk for child abuse.

Several studies have demonstrated that a mother's relationship with her parents, particularly her mother, is related to adaptation to pregnancy and the postpartum period.^{14, 15, 24, 30, 31} These studies suggest that pregnant women who had problematic relationships with their mothers had a high incidence of depression in the first year of the baby's life.

Negative reactions to, or rejection or denial of the pregnancy are related to a variety of prenatal, postnatal and infant outcomes.^{26, 27, 31-33} Lederman³⁴ found that anxiety during the third trimester, especially when caused by non-acceptance of pregnancy, predicted abnormal fetal heart patterns in the active phase of labor. Several studies have shown that mothers who had negative attitudes toward their pregnancies were at higher risk for premature labor, and their babies were more likely to be irritable, with sleeping, bowel and feeding problems.^{32, 33} Moreover, a negative attitude toward pregnancy identified parents at risk for postpartum depression and parenting failures such as child abuse and failure to thrive.^{26, 31}

Depression during pregnancy is another psychological variable related to maternal postpartum adjustment.¹³ Gray et al.²⁷ have identified prenatal maternal depression as an indicator of high risk for potential child abuse.

Knowledge about children and child-rearing has been associated with parental adaptation and infant outcomes. Funke-Furber¹⁴ and Gilstrap et al.³⁵ demonstrated that a mother's prenatal expectations for her infant predicted maternal postpartum adjustment. Interest in children has also been related to maternal postpartum adjust-

ment.¹⁶ Oakley³⁶ found that previous contact with babies predicted satisfaction with motherhood while lack of contact predicted postpartum depression. Studies by Altemeier et al.²⁶ and Egeland and Brunnequell³⁷ found that expectant mothers at risk for child abuse lacked knowledge about child development, contact with children and understanding of the psychological complexity of the child and the mother-child relationship. In the past, the extended family provided prospective parents with the necessary support and information for their new roles, but today many couples receive neither support nor information and are ill-prepared for parenthood. The effect on the infant can be severe.

The Father's Role

The literature on pregnancy, birth and parenthood has generally overlooked the father. But becoming a father is a major life crisis which involves significant psychological and even physical changes that are very similar to those experienced by mothers.³⁸ Fawcett et al.¹² found that expectant mothers' sense of increased body size in the first trimester is shared by expectant fathers.

The father's adaptation to pregnancy is related to his involvement in the birth, to his postpartum parental adjustment and to the development of his infant.^{13, 39, 40} Grossman et al.¹³ found that a father's adaptation to the pregnancy and parenthood is influenced by some of the same factors that influence the mother including anxiety, marital adjustment and his relationship with his mother.

The father's presence and active involvement in the birth and his postpartum contact with his infant result in greater attachment and more nurturing for his infant.^{29, 41, 42} These findings are particularly significant because of the increasing evidence of the father's influence on the child's development.⁴³

In addition, the father's experience of the pregnancy, birth and postpartum period are linked to the mother's experiences and adaptation. His anxiety, marital satisfaction and relationship with the mother are related to the mother's birth and postpartum adjustment.¹³ Studies by Bradley⁴⁴ and DeGarmo⁴⁵ show that the father's involvement in the birth correlated with shorter labors and less maternal postpartum depression.

Clearly, the prenatal period is the time when mothers and fathers begin the process of parenting. Facilitating adaptation to pregnancy should significantly improve parenting and infant outcomes.

How Can Family Physicians Help?

Most physicians concentrate on the physiological and physical changes of pregnancy. Little attention is given to the psychological needs of normal pregnant couples, but we should not wait until the effects of inadequate parenting are obvious and require costly longterm treatments that may be only partially successful in repairing the psychological or physical damage done to the child. Family physicians must focus on prevention and intervention during prenatal care.

The first step is an early prenatal assessment that attempts to identify high risk factors contributing to maladaptation to pregnancy. Many of these risk factors are the ones physicians check for predicting possible physiological and/or organic problems of pregnancy and delivery. Cohen⁴⁶ has suggested that a history of prior adverse experiences in childbirth or childbearing is a very important risk factor.

Any event or experience during the current or previous pregnancy that the mother believes is potentially damaging to the fetus is also a risk factor. Examples include falling down, difficulty conceiving, and having a child who is emotionally disturbed or developmentally delayed. If the pregnant woman perceives herself as having any medical condition that may be worsened by childbirth or childrearing, her emotional capacity to accept the pregnancy and the fetus may be seriously jeopardized.⁴⁶

Other risks are conflicts and/or defects in the parents' support systems. The physician can ask questions aimed at identifying the couple who have recently relocated, who are alienated, or who have marital problems. Questioning should also focus on prior experience with children or serious conflicts about pregnancy or childrearing.

Knowledge of the normal psychological tasks of pregnancy will help physicians identify maladjustment to the pregnancy. If physicians perceive signs of maladjustment at this stage they should spend extra time with the

couple to listen to their concerns and reassure them.

Horsley²⁸ encouraged communication between mothers and physicians about mothers' psychological needs during pregnancy. Mothers who received this encouragement had easier labors, fewer behavioral problems with their infants and were more likely to consult their physicians after the delivery.

Expectant parents are often anxious to talk about their experiences. Informal questioning by physicians during prenatal visits may help expectant parents to share their feelings and concerns. The physicians can encourage this sharing, which can have a major impact on the couple's ability to adjust to pregnancy, cope with labor and delivery and adapt to the new baby.

When stresses seem to overwhelm the pregnant woman, signs of decompensation may appear.⁴⁶ One form of decompensation is the inability to accept pregnancy. Continued ambivalence or rejection of the pregnancy long after quickening may be easy to identify. Useful clues include denying or ignoring body and appearance changes, constantly overreacting to these changes, preoccupation with vague emotional and/or physical unremediable complaints and engaging in activities during advanced pregnancy as if she were not pregnant.⁴⁶

A second form of decompensation is failure to develop an emotional affiliation with the fetus after quickening.⁴⁶ Clues to maladaptation include an absent or minimal response to quickening, a disturbed or distorted response to quickening, and absence of nesting behavior—especially in primiparous women—during the third trimester. These maladaptive behaviors can be observed during a conventional prenatal visit. Secondary intervention may be required at this time. Cohen⁴⁶ emphasizes the importance of mobilizing resources such as family counselling agencies, child welfare services, social workers or mental health professionals to provide additional support for pregnant women who are having difficulties.

These activities may require a modest increase in time spent with pregnant couples, but it leads to many longterm advantages, not only for the family but also for the family physician. Horsley²⁸ suggests that family physicians who communicate with patients during pregnancy attain a greater

sense of reward from practicing obstetrics, their patients make fewer emergency phone calls and visits and do less doctor shopping. Everyone benefits when parents and baby have a less stressful start to their relationship.

The family physician is also in a key position to encourage fathers' involvement in pregnancy and childbirth. Fathers can be included in all prenatal visits. The physician should let the father vent his anxieties and fears and include him when answering questions and explaining procedures. Fathers' attendance in prenatal classes should be encouraged and they should be given the opportunity to participate as much as possible in the birth. The father's involvement can provide emotional support for the mother in pregnancy and birth, facilitate her adjustment and significantly improve his relationship with his family.³⁸

In this age of efficient medical technology it is easy to overlook psychological changes and concentrate on physiological elements of pregnancy. Even though the psychological changes are of limited duration, they must not be discounted. An honest look at the emotional and mundane aspect of pregnancy can profoundly affect all family members' feelings about themselves during this crisis, especially when they realize they are not alone. The Standing Committee on Health, Welfare and Science suggests that we cannot over-emphasize the importance of helping parents to develop a deep and self-confident relationship with their infants; this relationship is the cornerstone of personality.⁴⁷

Who is in a better position to assist parents than the family physician and what better time to start giving this assistance than in the prenatal period? ●

Acknowledgement

We wish to thank Gail Cornick for her time and patience in preparing and typing this paper.

References

1. Bibring GL: *Some considerations of the psychological process in pregnancy*. *Psychoanal Study Child* 1959; 14:113-121.
2. Bibring GL, Dwyer TF, Huntington DS, et al: *The study of the psychological process in pregnancy and of the earliest mother-child relationship*. *Psychoanal Study Child* 1961; 16:9-24.
3. Kitzinger S: *Education and Counselling in Childbirth*. London, Cassell and Collier Macmillan Publishing Ltd., 1977, pp. 89-97.
4. Taylor PM, Hall BL: *Parent-infant*

bonding: Problems and opportunities in a perinatal center. *Semin Perinatol* 1979; 3:73-84.

5. Brazelton TB: Effect of maternal expectations on early infant behavior. *Early Child Dev Care* 1973; 2:259-273.

6. Colman A, Colman L: *Pregnancy: The Psychological Experience*. New York, Sea-bury Press, 1971, pp. 6-10.

7. Williams JH: *Psychology of Women*. New York, W. W. Norton and Company Inc., 1977, pp. 262-265.

8. Williams CC, Williams RA, Griswold MJ, et al: Pregnancy and life change. *J Psychosom Res* 1975; 19:123-129.

9. Holmes T, Rahe R: The social readjustment rating scale. *J Psychosom Res* 1967; 11:213-218.

10. Colman AD: Psychological state during first pregnancy. *Am J Orthopsychiatry* 1969; 39:788-797.

11. Fawcett J: The relationship between identification and patterns of change in spouses' body images during and after pregnancy. *Int J Nurs Stud* 1977; 14:199-213.

12. Fawcett J: Body image and the pregnant couple. *Matern Child Nurs J* 1978; 3:227-233.

13. Grossman FK, Eichler LS, Winickoff SA: *Pregnancy, Birth and Parenthood*. San Francisco, Jossey-Bass Publishers, 1980, pp. 12-44, 141-168.

14. Funke-Furber JT: Reliability and validity testing of maternal adaptive behavior, unpublished manuscript. Edmonton, University of Alberta, 1978.

15. Lagercrantz E, Lagercrantz R: Social and psychological risk factors in pregnancy and early parenthood, in Carenza L, Zichella L (eds): *Emotion and Reproduction*. London, Academic Press, 1979, vol 20B.

16. Shereshefsky PM, Yarrow LJ: *Psychological Aspects of a First Pregnancy and Early Postnatal Adaptation*. New York, Raven Press, 1973.

17. Spielbeiger C, Jacobs G: Emotional reactions to the stress of pregnancy and obstetric complications, in Carenza L, Zichella L (eds): *Emotion and Reproduction*. London, Academic Press, 1979, vol 20A.

18. Gorsuch RL, Key MK: Abnormalities of pregnancy as a function of anxiety and life stress. *Psychosom Med* 1974; 36:352-362.

19. Crandon AJ: Maternal anxiety and obstetric complications. *J Psychosom Res* 1979; 23:109-111.

20. Crandon AJ: Maternal anxiety and neonatal wellbeing. *J Psychosom Res* 1979; 23:113-115.

21. Mann EC: The role of emotional determinants in habitual abortion. *Surg Clin North Am* 1959; 37:447-458.

22. Tylan E: Hyperemesis and physiological vomiting. *J Psychosom Res* 1968; 12:85-93.

23. Newton RW, Webster PA, Binn PS, et al: Psychosocial stress in pregnancy and its relation to the onset of premature labour. *Br Med J* 1979; 2:411-413.

24. Wenner NK, Cohen MB, Weigert EV, et al: Emotional problems in pregnancy. *Psychiatry* 1969; 32:389-410.

25. Stott DH: Follow-up study from birth of the effects of prenatal stresses. *Dev Med*

Child Neurol 1973; 15:770-787.

26. Altemeier W, Vietze P, Sherrod K, et al: Prediction of child maltreatment during pregnancy. *J Am Acad Child Psychiatry* 1979; 18:205-218.

27. Gray JD, Antler CA, Dean JG, et al: Prediction and prevention of child abuse. *Semin Perinatol* 1979; 3:85-90.

28. Horsley S: Psychological management of the pre-natal period, in Howells JG (ed): *Psycho-obstetrics*. Edinburgh, Oliver and Boyd, 1972.

29. Peterson GH, Mehl HL: The role of some birth related variables in father attachment. *Am J Orthopsychiatry* 1979; 49:330-338.

30. Frommer EA, O'Shea G: Antenatal identification of women liable to have problems in managing their infants. *Br J Psychiatry* 1973; 123:149-156.

31. Uddenburg N, Nilsson L: The longitudinal course of para-natal emotional disturbance. *Acta Psychiatr Scand* 1975; 52:160-169.

32. Blau A, Staff B, Easton K, et al: The psychogenic etiology of premature births. *Psychosom Med* 1963; 25:201-211.

33. Ferreira AJ: The pregnant woman's emotional attitude and its reflection on the newborn. *Am J Orthopsychiatry* 1960; 30:553-561.

34. Lederman E, Lederman RP, Work BA, et al: Maternal psychological and physiologic correlates of fetal-newborn health status. *Am J Obstet Gynecol* 1981; 139:956-958.

35. Gilstrap B, Pfeifferberge C: *Psychological preparation for parenthood, paper presented at Society for Research in Child Development*, Boston, 1981.

36. Oakley A: *Women Confined: Toward a Sociology of Childbirth*. New York, Schocken Books, 1980.

37. Egeland B, Brunnequell D: An at-risk approach to the study of child abuse. *J Am Acad Child Psychiatry* 1979; 18:219-235.

38. Tudiver F: Fathers and childbearing: New dimensions. *Can Fam Physician* 1981; 27:984-988.

39. Antle K: Psychologic involvement in pregnancy by expectant fathers. *J Obstet Gynecol Nurs* 1975; 4:40-42.

40. May KA: Active involvement of expectant fathers in pregnancy: Some further considerations. *J Obstet Gynecol Nurs* 1978; 7:7-12.

41. Manion J: A study of fathers and infant caretaking. *Birth Fam J* 1977; 4:174-179.

42. Reiber V: Is the nurturing role natural to fathers? *Matern Child Nurs J* 1976; 1:366-371.

43. Schaefer ES: Professional paradigms in child and family health programs. *Am J Public Health* 1979; 69:849-850.

44. Bradley RA: Fathers' presence in the delivery room. *Psychosomatics* 1962; 3:474-479.

45. DeGarmo E, Davidson K: Psychosocial effects of pregnancy on the mother, father, marriage and family. *Curr Pract Obstet Gynecol Nurs* 1978; 2:24-44.

46. Cohen RL: Maladaptation to pregnancy. *Semin Perinatol* 1979; 3:15-24.

47. *Child at Risk. A report of the standing Senate Committee on Health Welfare and Science*. Ottawa, Canadian Government Publishing Centre, 1980.

Eumovate®

Betamethasone-like activity with hydrocortisone-like safety.

Indications. EUMOVATE is suitable for treating the milder forms of eczema, seborrheic dermatitis, and other steroid-responsive skin conditions, which do not require the use of a more potent topical corticosteroid.

Contraindications. Infected skin lesions if no anti-infective agent is used simultaneously; fungal and viral infections of the skin, including herpes simplex, vaccinia and varicella; pregnancy and lactation; hypersensitivity to any of the ingredients. Topical corticosteroids are also contraindicated in tuberculous lesions of the skin.

Warnings. EUMOVATE should not be used in the eye. When used under occlusive dressing, over extensive areas for prolonged periods, it is possible that sufficient absorption may take place to give rise to systemic effects. Patients should be advised to inform subsequent physicians of the prior use of corticosteroids.

The safety of topical corticosteroids during pregnancy and lactation has not been established. The potential benefit of topical corticosteroids, if used during pregnancy or lactation, should be weighed against possible hazard to the fetus or the nursing infant.

Precautions. Topical corticosteroids should be used with caution on lesions close to the eye.

Although hypersensitivity reactions are rare with topically-applied steroids, the drug should be discontinued and appropriate therapy initiated if there are signs of hypersensitivity.

Prolonged use of topical corticosteroid products may produce atrophy of the skin and subcutaneous tissue, particularly on flexor surfaces and on the face. If this is noted, discontinue the use of this product.

This product should be used with caution in patients with stasis dermatitis and other skin diseases associated with impaired circulation.

If a symptomatic response is not noted within a few days to a week, the local applications of corticosteroid should be discontinued and the patient re-evaluated.

During the use of topical corticosteroids secondary infections may occur.

Significant systemic absorption may result when steroids are applied over large areas of the body. To minimize this possibility, when long-term therapy is anticipated, interrupt treatment periodically or treat one area of the body at a time.

Patients should be advised to inform subsequent physicians of the prior use of corticosteroids.

The safety and effectiveness of EUMOVATE, when used under occlusive dressings, have not been determined.

In cases of bacterial infections of the skin, appropriate antibacterial agents should be used as primary therapy. If it is considered necessary, the topical corticosteroid may be used as an adjunct to control inflammation erythema and itching. If a symptomatic response is not noted within a few days to a week, the local application of corticosteroid should be discontinued until the infection is brought under control.

Adverse Reactions. Local burning, irritation, itching, skin atrophy, dryness of the skin, atrophy of subcutaneous tissues, telangiectasia, striae, change in pigmentation, secondary infection, hypertrichosis and adrenal suppression have been observed following topical corticosteroid therapy. Posterior subcapsular cataracts have been reported following systemic use of corticosteroids.

Dosage and Administration. EUMOVATE CREAM and EUMOVATE OINTMENT are applied thinly to cover the affected area, and gently rubbed into the skin.

Frequency of application is two to three times daily, according to the severity of the condition.

Maximum recommended dosage - not more than 100 g per week in adults.

Dosage Forms. EUMOVATE CREAM and EUMOVATE OINTMENT contain clobetasone 17-butyrate 0.05% EUMOVATE CREAM AND OINTMENT IS AVAILABLE IN 30 g TUBES.

Bibliography:

1. Morley et al - Current Medical Research and Opinion, 4, 223 (1976)
2. Stevanovic et al - British Journal of Dermatology, 96, 67 (1977)
3. Winter and Burton - British Journal of Dermatology, 94, Supplement 12, 107 (1976)
4. Sparkes - Ibid, 77
5. Munro and Wilson - British Medical Journal, 3, 626, (1975)
6. Munro - British Journal of Dermatology, 94, Supplement 12, 67 (1976)
7. McKenzie and Atkinson - Archives of Dermatology, 89, 741 (1964)
8. Winter and Wilson - British Journal of Dermatology, 94, 545 (1976)

Glaxo Laboratories
A GLAXO CANADA LIMITED COMPANY
1025 THE QUEENSWAY, TORONTO, ONTARIO M8Z 1P8
TELEPHONE (416) 252-2281

PAAB
CCPP